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An Essay on Cynanche trachealis or Croup

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Cynanche Trachealis
or
Croup.

Undoubtedly of all diseases to which children are liable, and which come under the observation of the Physician, none have stronger claims to his serious consideration, than the one chosen as the subject of this inaugural dissertation.

At one time, such was the obscurity in which the disease was involved, such the rapidity of its progress, and such its fatality, that it excited nought but terror and alarm in every Section of country in which it made its appearance.

Practitioners ignorant of the correct and best mode of treating the disease, relied more upon the Powers of nature than the resources of their own art.

Under these circumstances the child almost invariably fell a victim to the malady.

These were the circumstances under which the practitioner and patient once were situated. To the labours and ingenuity of modern physicians, is to be attributed the confidence with which we now approach a case of Croup, and the success which attends our treatment; eternal gratitude is due to those who have so essentially contributed to alleviate the misery of, and to preserve so interesting a portion of the community.

This disease as its name sufficiently expresses, has its seat in the trachea. It was generally supposed, and the opinion is still entertained by some, that Dr. Home was the first who spoke of the disease; but it appears that Boerhaave and some others met with

the disease and speak of it in their works.
If to them must be ascribed the credit of first introducing it to the notice of Physicians, not less is due to Dr. Home, in first giving us a correct idea of its pathology.

Croup is generally, though not exclusively confined to children; sometimes however attacking adults, and among the instances of the latter recorded, history mentions Genl. Washington who fell a victim to its ravages in the District of Columbia.

It is a disease of frequent occurrence in this country, but is I believe not so prevalent in Europe.

The causes which have been mentioned by authors as giving rise to the disease are numerous, but by far the most uniform and frequent, is exposure to a cold and moist atmosphere; hence most frequent

by prevails during autumn and spring.

That peculiar state of the atmosphere will render it an epidemic, observation and authority preclude all possibility of doubt; but as to its contagious nature which has been so strongly asserted by some we are not justified in credited.

The disease appears to be peculiarly endemical in certain sections of country, while other parts not very distant are exempted; for instance while it prevails at Hells point, it is rarely met with in Baltimore and when raging in Leith cases seldom come under the observation of the physicians of Edinburgh.

The generality of Nosologists, have divided Croup into two distinct forms; viz when it arises from inflammation and when produced by spasm. A Modern writer considers this division unnecessary, and

improper, as he believes the disease to be always the result of inflammation.

Notwithstanding this assertion dissection tends very much to support the propriety of such a distinction.

That Cynanche trachealis is sometimes caused by spasm, is probable from its sudden and unexpected accession, as well as from the appearance of the parts exposed to view by dissection.

On the other hand symptoms of such a character have appeared as to do away all doubt as to its inflammatory nature.

The symptoms which most usually indicate an attack of Croup, are the child being indolent, peevish and restless the eyes and face are suffused, and a peculiar cough attends which is considered as an infallible symptom.

These symptoms continuing for a day or two or a shorter time suffer an exacerbation, the disease becomes confirmed and assumes a most alarming aspect. The cough becomes more shrill and painful; the eyes and face are suffused to a greater degree; the difficulty of breathing now is such as almost to suffocate the patient; the countenance also indicates great uneasiness and internal distress; if relief is not soon afforded death soon closes the scene. It is something remarkable, that in the very worst forms of this complaint, the patient never complains of difficulty of deglutition

From the preceding history of Cynanche trachealis it must be evident that our measures and practice in toto must be prompt and decisive; for every hour nay every minute we lose

operates against the safety of our patient.

The practice found to be the most judicious and efficacious in the incipient stage of this disease, is to commence with the administration of an emetic; and the best we can select is the tart of ant., which is to be repeated at short intervals in the largest doses compatible with the safety of the patient; at the same time the child should be immersed in a warm bath and kept there for a quarter of an hour.

Should the emetic not have the desired effect, or after its operation we should not be sensible of any benefit resulting, we must take up the lancet and carry our bleeding to such an extent as to make the system susceptible to the impression of the emetic, and again

resort to the warm bath. But should the disease resist all these measures, & all our endeavors and exertions to procure relief be ineffectual, we are to depend upon topical remedies as cupping, leeching and sometimes blistering. Should these not answer our end and all our attempts to afford relief be baffled by the unyielding obstinacy of the case, we must again resort to bloodletting and push it to the utmost extent; even ad deliquium animi.

It will be almost a miracle if the case is not overcome by these means.

Having accomplished our object so far, calomel is the next remedy which claims our attention; but we should bear in mind that in the administration of this article, it should not be given in such doses as merely to open the bowels, but so as to induce the most copious

and thorough evacuations. Now is the time to resort to expectorants with the greatest advantage; and none answer so well as the Polygala Senika.

Having thus stated the mode of practice to be pursued in the commencement of Croup, we next proceed to speak of that stage of the complaint, when other parts of the respiratory system become affected. Here the lungs and pulmonary vessels become so much oppressed, that the disease assumes the characteristic appearances of Peripneumonia Notha. The disease is now evidently becoming worse and worse; all the symptoms are aggravated, the difficulty of breathing, the coughing and hoarseness are extreme, the eyes are wild and the pulse disturbed and full. It is here we have to call into requisition all

the resources of our art, and resort to the most vigorous and energetic measures, otherwise we have the mortification to see our patient rapidly sinking and dying under a disease which by prompt and judicious treatment might have been cured. Under these circumstances we must put the patient into the warm bath, thereby equallizing the circulation, and administer emetics, the most prompt in their operation, such as sulphat of zinc &c, & detract blood if it should be found necessary; in this part of our treatment extreme caution is necessary in attending to the effects, as there is great danger of reducing the system by blood letting even when small, below the point of reaction. As assisting these measures blistering the whole chest must be had recourse to. Having gone so

far we complete our treatment, with such medicines as best promote expectoration and diaphoresis; as the decoction of senaka and the antimonial wine. The administration of Calomel also is not to be neglected, as it is of the highest importance in the treatment of Croup. Dr. Hamilton whose authority carries as much weight as that of any other medical man, goes so far as to say that calomel is the best article of the Materia Medica which he has tried; and if his practice should be strictly followed, or in other words if given prior to the appearance of lividness, or other symptoms, indicating a fatal termination, it almost invariably succeeds in curing the disease.

The susceptibility of the system in Croup is so completely lost

that it is chiefly owing to this circum=stance, we are compelled to give such large doses of medicine, before we can get them to operate upon the system. But it has been ascertained from experience and observation, that if a sufficient quantity of blood be taken from the system, this susceptibility to impression is restored and awakened; and not one fifth of the calomel is required that has been administered. This is a fact of so much importance, that it should never be forgotten.

From what has been said it will be perceived that the treatment in both stages of Croup is not very dissim=ilar.

There has been considerable discus=sion, relative to a membrane which is sometimes produced in the trachea. Its

existence is supported, by such high authority that it would be an unwarrantable species of scepticism to doubt it. Nevertheless it must be of rare occurrence, seldom coming under the observation of those who have had the most enlarged experience in the treatment of Cynanche trachealis.

As to the nature and structure of this membrane there has been no little variety of opinion, it being insisted on by some as Home Monro &c that it is inspissated mucus, while on the other hand, it is as strenuously asserted by Dr. Rush Crawford and other authorities, as equally respectable, that it is coagulated lymph. Under these circumstances with whom shall we side when there is such contrariety of opinion, and the abettors of each theory being so respectable and equa

by dividing. The fact is we must remain neutral until more ample experience and observation shall put the question at rest.

It has been remarked by every person who has seen much of this complaint, that a majority of those children who are attacked with the disease fall victims to it. How shall we account for this fatality? shall we say it results from our poverty of resources or inability to arrest the progress of it, or that it proceeds from a total ignorance of its pathology and above all from the lenient and timid measures adopted to cure it.

That we have it in our power to cure Croup if called early to a case we are firmly persuaded; and I think to the two causes last mentioned must

be attributed our want of success; to the latter more particularly.

It has been said that the first attack of this disease, establishes a predisposition to it, and the patient is exceedingly liable to it ever afterwards. If this is a fact, we should be very cautious that the patient does not expose himself to those causes which have a tendency to produce it.

It is also the impression of some that the subsequent attacks of Croup, are less violent in proportion to the frequency of them. But Dr. Cheyne who is as high authority as any other medical man that can be consulted on this disease, thinks the assertion needs some qualification and attributes the comparative mildness of the attacks, to the caution observed, when symptoms appear characteristic of this com

=plaint; which caution has a tendency to prevent the full formation of Croup.

It frequently happens, that when the patient is apparently recovering from the disease, a sudden and unexpected exacerba=tion puts a period to his existence. The most plausible explanation of this change which has been adduced, is by the author last mentioned, who believes it to result more from a mechanical than spasmodic affection of the trachea; and states that after some part of the membrane is expectorated, the remainder may be so much loosened, as to act as a valve, and by that means produce suffocation.

Having thus stated the history of Cynanche trachealis and the treatment to be adopted for its cure, and given the dif=ferent opinions relative to certain circumstan=ces connected with the disease, I shall

conclude by observing that all chronic cases of Croup must be treated by salivation.